



IDEM
Office of Air Management
Rules Guidance

March 1998

**DEVELOPMENT OF NEW RULES CONCERNING THE INCORPORATION OF
NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR
PRIMARY ALUMINUM REDUCTION PLANTS
98-15 (APCB)**

FACT SHEET

Overview

This rulemaking adds a new rule, 326 IAC 20-24, to incorporate the national emission standard for hazardous air pollutants for primary aluminum reduction plants.

Citations Affected

Adds 326 IAC 20-24.

Affected Persons

Primary aluminum reduction plants.

Potential Cost

Low because the rulemaking incorporates federal requirements.

Description

Under Title III of the Clean Air Act Amendments of 1990, the U.S. EPA is required to regulate emissions of 188 listed hazardous air pollutants (HAPs) (Note: the original list contained 189 HAPs, but the U.S. EPA has subsequently removed caprolactum from the list). For categories of major sources listed pursuant to Section 112(c), the Clean Air Act requires the U.S. EPA to develop standards that will require

the application of stringent air pollution controls, known as maximum achievable control technology (MACT). MACT reflects the maximum degree of reduction in emissions of HAPs that is achievable taking into consideration the cost of achieving the emission reduction, any health and environmental impacts, and energy requirements. The published list of source categories includes primary aluminum reduction plants.

On October 7, 1997, the U.S. EPA promulgated a final rule that established national emission standards for each new or existing potline, paste production plant, and anode bake furnace associated with a primary aluminum reduction plant, and for each new pitch storage tank associated with a primary aluminum production plant. In addition, the new source performance standard (NSPS) for primary aluminum plants was amended and most of the requirements were incorporated in the final national emission standards. The U.S. EPA also added Method 315 for the measurement of extractable organic matter to 40 CFR 63, Appendix A and Method 14A for the

measurement of total fluoride to 40 CFR 60, Appendix A.

The major HAPs emitted by the sources affected by this rulemaking include hydrogen fluoride and polycyclic organic matter (POM). Polycyclic aromatic hydrocarbons (PAHs) are included in the chemical group POM. The final rule will result in a 50% reduction in fluoride and POM emissions from their current levels of 7,400 tons per year and 4,000 tons per year, respectively. In addition, a substantial reduction in emissions of non-HAP pollutants, such as particulate matter, will also be achieved.

The national emission standard is based on a combination of control techniques that either prevent the escape of HF and POM emissions or capture the pollutants and return them to the process. Emissions of HF and POM are limited from primary aluminum potlines and anode bake furnaces and POM emissions are limited from paste production plants. There is one primary aluminum reduction plant, Aluminum Company of America, located in Warrick County, Indiana that would be affected by this rule. Compliance with the national emission standard must be demonstrated by October 7, 1999.

Consistency with Federal Requirements

The new rules are consistent with federal rules.

CONSIDERATION OF FACTORS OUTLINED IN INDIANA CODE 13-14-8-4

Indiana Code 13-14-8-4 requires that in adopting rules and establishing standards, the board shall take into account:

- 1) all existing physical conditions and the character of the area affected;
- 2) past, present, and probably future uses of the area, including the character of the uses of surrounding areas
- 3) zoning classifications;
- 4) the nature of the existing air quality or

existing water quality as the case may be;
5) technical feasibility, including the quality conditions that could reasonably be achieved through coordinated control of all factors affecting the quality; and
6) economic reasonableness of measuring or reducing any particular type of pollution.

The board shall also take into account the right of all persons to an environment sufficiently uncontaminated as not to be injurious to human, plant, animal, or aquatic life or to the reasonable enjoyment of life and property.

IDEM Contact

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